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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Bernardus Johannes Tobben

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EGBERT LAW OFFICES  
412 MAIN STREET, 7TH FLOOR  
HOUSTON, TX 77002

EXAMINER

WRIGHT, GIOVANNA COLLINS

ART UNIT

PAPER NUMBER

3672

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/539,945	<b>Applicant(s)</b> TOBBEN, BERNARDUS JOHANNES	
	<b>Examiner</b> GIOVANNA C. WRIGHT	<b>Art Unit</b> 3672	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 4-6 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4 and 5 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/4/09 has been entered.

### ***Specification***

2. The disclosure is objected to because of the following informalities: The specification not include a brief description for each figure under the section Brief Description of the Several Views of the Drawings.

Appropriate correction is required.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show how sensor (3) is connected to the sea water return pipe; how the flowmeters (7 and 8 ) are connected, how the circulation pump (5) is connected to pump the glycol mixture in a closed circuit system as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the sensor means on the outlet of the second heat exchanger means as claimed in claim 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata 5921829 in view of Jaeger 6582263.

Referring to claim 4, Iwata discloses an apparatus for cooling drilling mud comprising: a first heat exchanging means (60) for passing the drilling mud in heat exchange relationship with coolant so as to cool the drilling mud; a second heat exchanging means (66) for passing the coolant in heat exchange relationship with seawater; a closed circuit (at 53) between said first heat exchanging means and said second heat exchanging means, said closed circuit having the coolant contained therein; and a pumping means (54) for circulating coolant in said closed circuit. Iwata does not specifically disclose the coolant is glycol water mixture. Jaeger teaches that a glycol water mixture is a well known coolant (col. 5, lines 10-11). As a glycol water mixture is a well known coolant, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus disclosed by Iwata to use glycol water mixture as the coolant.

7. Claims 4-5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stokke 5005655 cited in IDS filed 9/26/05 in view of Grinde 4836123

Referring to claim 4, Stokke discloses an apparatus for cooling drilling mud comprising: a first heat exchanging means (56) for passing the drilling mud in heat exchange relationship with coolant so as to cool the drilling mud. Stokke does not

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disclose a second heat exchanging means (66) for passing a glycol water mixture in heat exchange relationship with seawater; a closed circuit between said first heat exchanging means and said second heat exchanging means, said closed circuit having the glycol water contained therein; and a pumping means for circulating glycol water mixture in said closed circuit. Stokke discloses seawater is used as a coolant col. 8, lines 2-4, and lines 60-61). Grinde teaches a heat exchanger (26) for passing a glycol water mixture in heat exchange relationship with seawater, a closed circuit (34) between said first heat exchanging means and said second heat exchanging means, said closed circuit having the glycol water mixture (water and antifreeze mixture) contained therein; and a pumping means (56) for circulating glycol water mixture in said closed circuit. Grinde teaches that sea water can have a corrosive effect on some metals (col. 6, lines 40-39). As it would be advantageous to reduce the chance of corrosion when metal exchangers are used, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus disclosed by Stokke to have a second heat exchanging means (26) for passing a glycol water mixture in heat exchange relationship with seawater, a closed circuit) between said first heat exchanging means and said second heat exchanging means, said closed circuit having the glycol water mixture contained therein; and a pumping means for circulating glycol water mixture in said closed circuit in view of the teachings of Grinde.

Referring to claim 5, Stokke discloses said first heat exchanging means (56) comprising an inlet ( arrow shown pointing into element 56) suitable for receiving warmed drilling mud therein, said first heat exchanging means comprising an outlet ( at

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57b) suitable for discharging cooled drilling mud, said inlet and said outlet being positioned at an oil drilling site in order to circulate the drilling mud thereof ( col. 4, lines 56-57).

***Allowable Subject Matter***

8. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

9. Applicant's arguments with respect to claims 4-5 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIOVANNA C. WRIGHT whose telephone number is (571)272-7027. The examiner can normally be reached on 7:30-4 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Giovanna C. Wright/  
Primary Examiner, Art Unit 3672